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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,378	09/27/2006	Suguru Fujita	NGB-41334	7760
53054 7590 05/26/2009 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER CORRIELUS, JEAN B	
			ART UNIT 2611	PAPER NUMBER
			NOTIFICATION DATE 05/26/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patdocket@peame.com
dchervenak@peame.com

Office Action Summary

Application No.

10/599,378

Applicant(s)

FUJITA ET AL.

Examiner

Jean B. Corielus

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-16 and 24 is/are rejected.
7) ☒ Claim(s) 17-23 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/27/06 and 4/10/09
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 4/10/09 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the date of the "Chinese Office action" has not been provided. It has been placed in the application file, but the information referred to therein with respect to the "Chinese office action" document has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the coupler used between the distributing circuit and the delay circuit or between the delay circuit and the pulse composition circuit, as recited in claim 7, the state determining circuit as recited in claim 17, the interference detecting circuit as recited in claim 21, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1- 2, 6-7, 9-12, 16 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Walker et al US patent Application Publication No. 2005/0179585 A1.

As per claim 1, Walker et al discloses an apparatus (note for instance figs. 5-7, 12 and 14) comprising an antenna 126 (reception front end) for receiving a plurality of

pulse signals as a reception signal, wherein each one of the pulse signals has a pulse sequence generating time different from each other note fig. 1A; a delay circuit note 220/1206/820 for generating a delay signal by giving a different delay time to at least every output signal from the reception front end (note 820); and a combiner 230/1208/830 (delay pulse composition circuit) for combining a first delay signal with a second delay signal or the output signal from the reception front end note fig. 7 and fig. 14.

As per claim 2, Walker sows in fig. 1A, the signal having a first pulse 100 and a second pulse 102, where pulse sequence generating time of the second pulse signal is different from the first pulse signal see fig. 1A.

As per claim 6, Walker et al teaches a distribution circuit 128 (fig. 3 and fig. 6) for distributing a signal from the antenna (reception front end).

As per claim 7, Walker teaches a coupler 604 coupled between distribution circuit 128 (fig. 3 and fig. 6) and delay circuit 220/1206/820.

As per claim 9, a first pulse signal and a second pulse signal are used for reception and demodulation note fig. 15 components 150-6, 1508 and 1510.

As per claim 10, the generating time of the second pulse is longer than the first note fig. 1A, where the second pulse 102 is generated later in time with respect to first pulse signal.

As per claim 11, see claim 10.

As per claim 12, Walker further teaches a transmitter fig. 4 comprising an encoder 129 (control signal generating circuit) for outputting a trigger signal (control

signal) which generates a plurality of pulse signals having pulse sequence generating times different from each other note fig. 1A; and a pulse generating circuit note 130 for generating the plurality of pulse signals by using the trigger (control) signal.

As per claim 16, see claim 2.

As per claim 24, see the rejection of claims 1 and 12 combined.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al US Patent Application Publication No. 2005/0179585.

As per claim 13, as applied to claim 13 above, Walker et al teaches every feature of the claimed invention does not explicitly teach using an oscillating circuit as the pulse generating circuit. However, examiner notes that it is well established in the art to use an oscillating circuit as the pulse generating circuit. Given that, it would have been obvious to one skill in the art to use an oscillator circuit as the pulse generating circuit because oscillator circuit provides several advantages such as ease of implementation over other type of equivalent circuitry.

As per claim 14, it would have been obvious to implement the oscillator as a frequency variable and the motivation to do so would have been the same as provided above with respect to claim 13.

As per claim 15, it would have been obvious to make the oscillator circuit works intermittently using the control implement the oscillator as a frequency variable and the motivation to do so would have been the same as provided above with respect to claim 13

7. Claims 3-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al US patent Application Publication No. 2005/0179585 in view of Langford et al US patent no. 20030058971.

As per claim 3, as applied to claim 1 above, Walker et al teaches every feature of the claimed invention does not explicitly teach using a first antenna and a second antenna as the reception front end. However, as evidence by Langford et al fig. 10, it is well known in the art to use a front end having first and second antenna. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Walker et al in order to minimize multipath interference because a multiantenna arrangement would have created a diversity arrangement which by definition would have reduced multipath interference.

As per claim 4, the first antenna outputs the reception signal, the second antenna outputs given pulses signals note fig. 10A. It would have been obvious to on skill in the art to have modified Walker in such a manner. And the motivation to do so would have been the same as provided with respect to claim 3.

As per claim 5, it would have been obvious to one skill in the art to use a delay in the rage of " $n-2/3$ cycle) and " $n-1/3$ cycle so as to meet system design requirements.

As per claim 8, see claim 5.

Allowable Subject Matter

8. Claims 17-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Monday-Thursday from 9:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean B Corrielus/
Primary Examiner
Art Unit 2611